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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,363	10/25/2001	John Steffen	00-135	2326
62753	7590	05/18/2007	EXAMINER	
VALERIE CALLOWAY			LEE, RIP A	
CHIEF INTELLECTUAL PROPERTY COUNSEL			ART UNIT	PAPER NUMBER
POLYMER GROUP, INC.			1713	
9335 HARRIS CORNERS PARKWAY SUITE 300				
CHARLOTTE, NC 28269				
			MAIL DATE	DELIVERY MODE
			05/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/001,363	STEFFEN ET AL.	
	Examiner	Art Unit	
	Rip A. Lee	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 March 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 7 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 7 and 11-14 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

This office action follows a response filed on March 1, 2007. Claims 7 and 11-14 are pending.

Claim Objections

1. Claim 7 is objected to because of the following informalities:

Please amend the claim to recite, "...10 % and 13 % by weight of a wetting compound and between about 38 % and 44 % by weight of titanium dioxide, with..."

Also, in line 5 of the claim, delete the word "a" which appears after "wherein."

Appropriate corrections are required.

2. Claim 11 is objected to because of the following informalities: Please correct claim dependency. Claim 11 should depend from claim 7. Appropriate correction is required.

3. Claim 11 is objected to because of the following informalities:

Please amend the claim to recite, "...of about 12.5 % by weight of a wetting compound, about 40 % by weight of titanium dioxide (TiO₂), and about 47.5 % by weight of low..."

Appropriate corrections required.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 7 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones *et al.* (U.S. 3,668,172) for the same reasons set forth in the previous office action.

Jones *et al.* discloses a polyethylene concentrate composed of pigment highly dispersed in low density polyethylene as the preferred low molecular weight polyolefin carrier and medium density polyethylene as the high molecular weight polyolefin; the concentrate contains from about 20-85 wt % of pigment, and about 3-35 wt % of surfactant (col. 2, lines 45-65). Apparently, the concentrate is in the form of a pellet (col. 4, line 12). The examples show use of TiO₂ as inorganic pigment, and one having skill in the art would have found it obvious to use TiO₂, based on this disclosure. The pigment concentrate is used primarily in production of pigmented polyester fiber, however, pigmented polyester compositions may be fabricated into any desired article such as film, tape, or ribbon (col. 3, line 30). Regardless of form, the amount of concentrate may be adjusted to provide in the final polyester composition from about 0.1 to about 5 wt % of pigment (col. 3, line 5).

The reference does not disclose a specific example in which the amount of wetting compound and TiO₂ lie in the claimed ranges. Jones *et al.* discloses a broader range of components, however, in absence of any showing of criticality of the claimed ranges, it is maintained that one having ordinary skill in the art would have found it obvious to arrive at the subject matter of the instant claims based on the teachings of the prior art.

Response to Arguments

6. Applicant traverses the rejection of claims over Jones *et al.* Applicant's arguments have been considered fully, but they are not persuasive.

Applicant indicates that Jones *et al.* is not related to the claimed invention based on the fact that the pigment concentrate is used primarily in production of pigmented polyester fiber. However, Jones *et al.* states that pigmented polyester compositions may be fabricated into any desired article such as film, tape, or ribbon. Therefore, it would have been obvious to one having ordinary skill in the art to make the claimed article, *i.e.*, a film, based on this teaching.

It appears that Applicants are implying that the wetting agent of Jones *et al.* is in pellet form (see lines 1-3 of paragraph 2 of response). It is not clear whether the form of wetting agent is significant since there is no such description in the instant claims. Applicants also point to the fact that the pellet form referenced by examiner is that of a carbon black concentrate, rather than a TiO₂ concentrate. Note however, that in example 4, the titanium dioxide concentrate was prepared by the same procedure as that of the carbon black concentrate of example 1 (col. 4, line 61), meaning that this was also formed into a pellet. Even if this logical interpretation of the written example is not what was performed in practice, one of ordinary skill in the art would have found it obvious to make a TiO₂ concentrate into a pellet because this form is disclosed in the teachings of Jones *et al.* Applicants indicate that that pellets of the present invention have improved pellet surface characteristics. This is more likely due to the presence of wetting agent rather than due to the form or shape of the concentrate particles itself.

Applicants also submit that Jones *et al.* actually indicates the amount of pigment concentrate, rather than the pigment *per se*, is variable. Note that Jones *et al.* states that the amount of concentrate may be adjusted to provide in the final polyester composition from about 0.1 to about 5 wt % of *pigment*. Logomachy aside, since the concentrate contains pigment, and surfactant, varying the amount of concentrate ultimately results in variation of the amount of pigment and surfactant in the overall composition.

Lastly, and perhaps more importantly, Applicant points to data provided in the specification as testimony to unexpected results in order to overcome the present *prima facie* case of obviousness.

Jones *et al.* discloses a considerably broader range (20-80 wt %) of pigment and of surfactant (3-35 wt %) than that recited in the instant claims (38-44 wt % pigment and 10-13 wt % surfactant). The working example of a TiO₂ pigment concentrate of Jones *et al.* contains 49 wt % of TiO₂. Concentrates of the other examples in Jones *et al.* contain as low as 23 wt % and as high as 45 wt % of pigment. Thus, it is not unreasonable for one having ordinary skill in the art to find it obvious to arrive at the unexceptional range of 38-44 wt %.

Regarding the level of surfactant, the data presented in the table shows that the percentage of waste from holes is decreased at 10 wt % and 12.5 wt % of surfactant in the concentrate. It is noted that these data show that the percentage of waste from holes decreases commensurately with the level of surfactant in the concentrate in the range of 10-12.5 wt %. It is not clear whether this trend is unexpected since there is no indication of the rate of hole production at lower amounts of surfactant in the concentrate. It would appear that an even lower amount of surfactant will result in lower amount of waste holes, and based on the brief trend in the table, this result would not be unexpected. It is not clear how this behavior compares against the lower limit (3 wt %) of the range of surfactant cited in Jones *et al.* This is significant in light of the fact that the present specification teaches that the amount of wetting agent may be as low as 1 wt %.

Other considerations arise upon evaluation of these data. The data are reported at an invariant amount of 40 wt % TiO₂, however, it is not clear whether a similar trend is observed in the entire claimed range of pigment (38-44 wt %). Furthermore, it can be reasonably expected that the amount of concentrate, which directly determines the amount of surfactant in the film, is the determining factor in the rate of hole formation, rather than the level of surfactant in the concentrate. Therefore, the wt % of surfactant in the concentrate alone, is rather meaningless unless it is accompanied with a corresponding amount of surfactant in the overall composition. Furthermore, these results are based on one type of film material. There is no indication that the effect of wetting compound in concentrate on film properties is universal, being exhibited

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similarly in all films comprising extruded sheet, as recited in the instant claim. Evidence presented to rebut a *prima facie* case of obviousness must be commensurate in scope with the claims to which it pertains; evidence provided that is narrower in scope is not sufficient to rebut a *prima facie* case of obviousness.

As a last consideration, since the examiner is not entirely conversant with the terminology in the art, elucidation of the remaining data in the table is requested in order to evaluate the totality of objective evidence.

In light of these facts, the rejection of record has not been withdrawn.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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May 16, 2007


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